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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,981	10/07/2003	Robert Goguen	CISCP839	4747

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EXAMINER

NEURAUTER, GEORGE C

ART UNIT	PAPER NUMBER
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2143

MAIL DATE	DELIVERY MODE
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05/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/679,981	Applicant(s) GOGUEN ET AL.	
	Examiner George C. Neurauter, Jr.	Art Unit 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5,6 and 14 is/are allowed.
- 6) ☒ Claim(s) 1,2,7-13 and 15-17 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) ☒ Notice of References Cited (PTO-892) | 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) ☐ Notice of Informal Patent Application |
| 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>06/07/2004</u> . | 6) ☐ Other: _____ |

DETAILED ACTION

Claims 1-17 are currently presented and have been examined.

Claim Interpretation

Claims 1-17 use the conjunction "if" to recite limitations. It is noted by the Examiner that the use of the word "if" is only a conditional statement that may or may not occur and therefore, any limitation that uses "if" to describe a limitation introduces the possibility that the limitation may not be true, therefore rendering the limitation to have no positive recitation since the claim fails to recite the alternative condition wherein the condition is not true. Therefore, the broadest reasonable interpretation of the claim as required by MPEP 2111 requires that the claims be interpreted in the sense that the alternative condition may occur. If the Applicant wishes the limitations as recited to be positively recited, it is suggested that the claims be amended in order to positively recite the desired outcome in order to overcome the alternative condition interpretation.

The Examiner notes that claim 17 recites limitations that are presumed to invoke 35 USC 112, 6th paragraph. If the Applicant wishes such interpretation to be given to the claims, the Applicant must show for the record why the claim language properly invokes 35 USC 112, 6th paragraph and identify the

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function and corresponding structure. The Applicant must also amend the claims, if necessary, to meet the requirements of the 3-prong analysis as prescribed in MPEP 2181. The Examiner also suggests that the Applicant amend the specification, if necessary, to explicitly state what structure corresponds to the recited function with reference to the claimed terms and phrases, provided no new matter is introduced. See 37 CFR 1.75(d) and MPEP 2181.

Claim Rejections - 35 USC § 101

Claims 9-12 recites a computer program product encoded in a computer readable medium or media. In one of the embodiments of such computer readable media, the specification discloses that "A carrier wave that carries the code across the network is another example of a computer-readable medium" (page 8, lines 21-22). Signals used as computer readable media are not currently considered to be statutory subject matter since a signal encoded with functional descriptive material does not fall under any of the four statutory classes. See ANNEX IV "Computer-Related Nonstatutory Subject Matter", section (c) "Electro-Magnetic Signals" of the "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility", released 22 November 2005 in the Official Gazette ("Moreover, it does not appear that a claim reciting a signal

encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101...These interim guidelines propose that such signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101.")

Claim Rejections

Claims 1-2, 9, 13, and 17 are rejected in view of Applicant's admitted Prior Art, specifically the specification on pages 1-3. The Applicant stated in the specification filed 7 October 2003 that "Fast Reroute techniques have been developed", therefore, this statement is construed by the Examiner that this statement constitutes an admission of prior art. See MPEP 2129 and *Riverwood Int'l Corp. v. R.A. Jones & Co.*, 324 F.3d 1346, 1354, 66 USPQ2d 1331, 1337 (Fed Cir. 2003).

Regarding claim 1, Applicant's admitted prior art disclosed a method for operating a forwarding device, said method comprising:

receiving a packet to be forwarded; identifying a first forwarding table entry corresponding to a forwarding equivalence class of said packet; if a forwarding interface identified by said first forwarding table entry is protected by an active backup tunnel and adjacency information for said active backup tunnel has not yet been included in said entry, performing a

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look-up in a second forwarding table to retrieve said adjacency information for said active backup tunnel; and forwarding said packet in accordance with said adjacency information retrieved from said second forwarding table. (page 2, lines 10-12 and 15-20)

Regarding claim 2, Applicant's admitted prior art disclosed the method of claim 1 further comprising:

if said forwarding interface identified by said first forwarding table entry is either not currently protected by an active backup tunnel or said first forwarding table entry is currently protected by an active backup tunnel and said first forwarding table entry has already been rewritten with adjacency information for said backup tunnel, forwarding said packet in accordance with said adjacency information in said first forwarding table entry. (page 1, lines 15-17; page 1, line 22- page 2, line 2; page 2, lines 19-20)

Claims 9, 13, and 17 are also rejected since these claims recite substantially the same limitations as recited in claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 7-8, 11-12, and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of US Patent Application Publication 2003/0110287 to Mattson.

Regarding claim 7, Applicant's admitted prior art discloses a method of operating a forwarding device, said method comprising:

storing adjacency information for a primary tunnel in a first forwarding table; (page 2, lines 10-15 of the specification)

establishing a backup tunnel protecting a segment of said primary tunnel; (page 1, lines 15-16; page 1, line 22-page 2, line 2; page 2, lines 7-9) and

when said primary tunnel is operative, forwarding packets assigned to said primary tunnel based on a single look-up to said first forwarding table. (page 2, lines 16-18)

Applicant's admitted prior art did not expressly disclose storing adjacency information for said backup tunnel in a second forwarding table; and upon activation of said backup tunnel in response to failure of said primary tunnel segment, forwarding packets assigned to said primary tunnel via said backup tunnel based on a look-up in said first forwarding table followed by a look-up in said second forwarding table, however, Mattson

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discloses these limitations in conjunction with the limitations recited in the Applicant's admitted prior art ("adjacency information" disclosed in Mattson as "label" information; see paragraphs 0003, 0012, 0015, 0016, and 0043)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since both references are directed to methods of operating forwarding devices using back tunnels. Mattson states that the disclosed methods allows for path recovery using a small amount of resources (paragraph 0021). Therefore, one of ordinary skill in the art would have been motivated to combine the teachings of these references to achieve the claimed invention.

Claims 11 and 15 are also rejected since these claims recite substantially the same limitations as recited in claim 7.

Regarding claim 8, Applicant's admitted prior art and Mattson disclosed the method of claim 7.

Applicant's admitted prior art disclosed after activation of said backup tunnel, rewriting adjacency information of said primary tunnel in said first forwarding table to reflect use of said backup tunnel; and thereafter resuming forwarding packets assigned to said primary tunnel based on a single look-up to said first forwarding table. (page 2, lines 16-20)

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Claims 12 and 16 are also rejected since these claims recite substantially the same limitations as recited in claim 8.

Allowable Subject Matter

Claims 3 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 5-6, 10, and 14 are allowed in view of the cited prior art. The prior art fails to teach or suggest a forwarding table with entries corresponding to primary tunnels, the entries having pointers to adjacency information for backup tunnels within a backup tunnel adjacency table and backup tunnel active flags within a backup tunnel active table which, in addition to the rest of the claim limitations, are distinguished from the prior art.

Conclusion

It is noted that the column, line, and/or page number citations used in the prior art references as applied by the Examiner to the claimed invention are for the convenience of the Applicant to represent the relevant teachings of the prior art. The prior art references may contain further teachings and/or suggestions that may further distinguish the citations applied to the claims, therefore, the Applicant should consider the

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entirety of these prior art references during the process of responding to this Office Action. It is further noted that any alternative and nonpreferred embodiments as taught and/or suggested within the prior art references also constitute prior art and the prior art references may be relied upon for all the teachings would have reasonably suggested to one of ordinary skill in the art. See MPEP 2123.

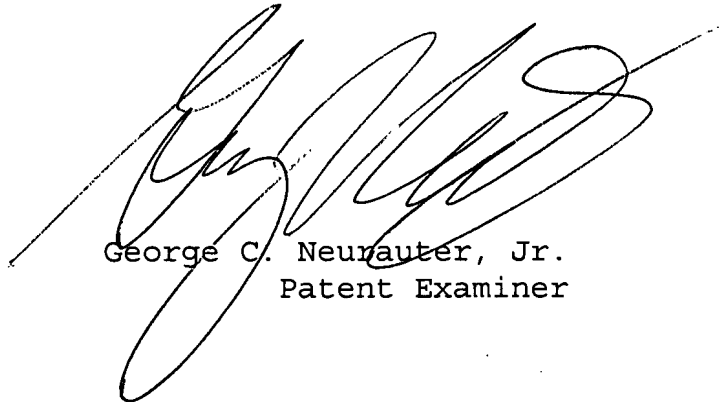
Any inquiry concerning this communication or earlier communications from the examiner should be directed to George C. Neurauter, Jr. whose telephone number is 571-272-3918. The examiner can normally be reached on Monday-Friday 9am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley, can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on

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access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



George C. Neurauter, Jr.
Patent Examiner